

## Some Alaskan Stoneflies

(Plecoptera)

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Kenneth Goeden of the Oregon State Department of Agriculture and I spent a week in Alaska during 1968 collecting insects at several locations along highways between Anchorage and the vicinity of Eagle on the Steese Highway east of Fairbanks. We collected 18 species of stoneflies, including an undescribed species of *Nemoura* and several others of special interest. Since few stoneflies have been recorded from this section of Alaska, I am presenting all of the records in this paper.

I am indebted to Dr. William E. Ricker for confirming my identifications for *Chloroperla ovibovis* and the new *Nemoura* and to Alan V. Nebeker for the drawings. Financial assistance for carrying on some of the research upon which this paper is based was provided by the National Science Foundation (Grant NSF-GB-3726).

### PTERONARCELLA BADIA Hagen

Mendeltna Creek, Glenn Highway, 30 June 1968, 5 males, 3 females, Goeden and Jewett.

Two of the males are brachypterous, the wings extending about half the length of the abdomen.

### CAPNIA COLUMBIANA Claassen

Moose Creek, 8 miles east of Palmer, Glenn Highway, 29 June 1968, female, S. G. Jewett, Jr.

### CAPNIA CONFUSA Claassen

Mendeltna Creek, Glenn Highway, 30 June 1968, 2 females, Goeden and Jewett; One Mile Creek, Paxson, Richardson Highway, 1 July 1968, female, Goeden and Jewett.

### EUCAPNOPSIS BREVICAUDA (Claassen)

Phelan Creek, McCallum, Richardson Highway, 1 July 1968, female, S. G. Jewett, Jr.; One Mile Creek, Paxson, Richardson Highway, 1 July 1968, female, Goeden and Jewett; Creek about 7 miles east of Eureka, Glenn Highway, 30 June 1968, female, S. G. Jewett, Jr.

### LEUCTRA FORCIPATA Frison

One Mile Creek, Paxson, Richardson Highway, 1 July 1968, male, 2 females, Goeden and Jewett.

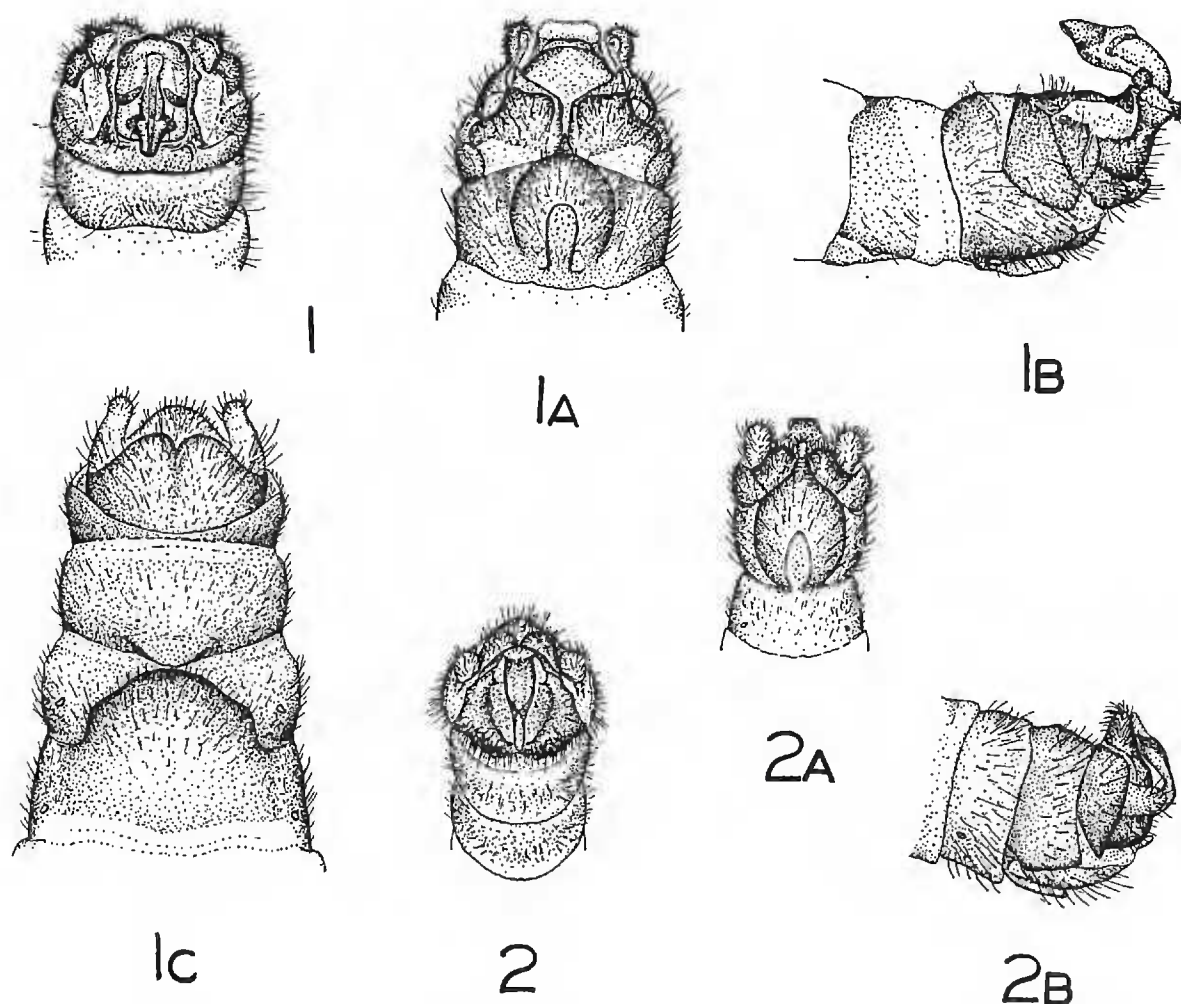


FIG. 1, *Nemoura rickeri* Jewett, male genitalia of holotype, dorsal view; 1A, ventral view; 1B, lateral view; 1C, female genitalia of allotype, ventral view. FIG. 2, *Podmosta weberi* (Ricker), male genitalia, dorsal view; 2A, ventral view; 2B, lateral view.

These specimens are smaller than material from Clatsop County, Oregon.

#### NEMOURA ARCTICA Ebsen-Peterson

Creek about 7 miles east of Eureka, Glenn Highway, 30 June 1968, 2 males, 6 females, Goeden and Jewett.

#### *Nemoura rickeri* Jewett, new species

Color of body and appendages dark brown, abdomen lighter than head and thorax. Wings clear. Length of body 5.5 mm for male, 6 mm for female; length to tip of wings 7.5 mm for male, 9 mm for female.

MALE.—Ninth and 10th segments heavily sclerotized. Cerci strongly sclerotized on outer surface, directed upward to lie on either side of epiproct, tips bearing an outwardly directed, sharply pointed, hairy tooth (Figs. 1 and 1A). Tenth tergite deeply incised medially; epiproct recurved, massive, rectangular, in dorsal view the blunt tip twice as long as wide, tip bluntly pointed in lateral view (Figs. 1 and 1B). Paraprocts simple, broad. Tip of ninth sternite sharply pointed; basal

lobe about twice as long as wide, nearly straight-sided, tip broadly rounded (Fig. 1A).

FEMALE.—Seventh sternite produced over most of 8th by broad, rounded median plate, hairy and heavily sclerotized along its distal border (Fig. 1C); 9th sternite with small median plate extending anteriorly to margin of extended seventh sternite; eighth sternite less heavily sclerotized than seventh and ninth.

*Holotype male*, Cache Creek, 19 miles east of Eureka, Glenn Highway, Alaska, 30 June 1968, Goeden and Jewett. Allotype and paratype male, same data as holotype. Paratype male, creek about 7 miles east of Eureka, Glenn Highway, Alaska, 30 June 1968, S. G. Jewett, Jr. Holo- and allotype deposited in the collection of the California Academy of Sciences.

This species is similar to the rare northern European *Nemoura sahlbergi* Morton.

This species is named for Dr. William E. Ricker, eminent fishery scientist and stonefly authority.

#### PODMOSTA WEBERI (Ricker)

*Nemoura (Podmosta) weberi* Ricker, 1952, Indiana Univ. Publ., Sci. Ser., No. 18, pp. 46–47.

To Ricker's original description of this species based on females, I can now add a description of the male.

Length of body 5 mm, to tip of wings 7 mm. Color straw to brown with back of head and prothorax darkest; legs and antennae straw; wings almost clear, very lightly infuscated. Cerci short, narrow at base, globular, membranous, heavily sclerotized and beset with hairs (Fig. 2A). Tenth tergite deeply recessed medially, in lateral view, its anterior margin raised well above other abdominal segments (Figs. 2 and 2B); in dorsal view, epiproct recurved, elongated, distal half narrowed and finger-like, tip rounded (Fig. 2). Paraprocts simple, triangular, distally broadly rounded. Tip of ninth sternite bluntly pointed; basal lobe about twice as long as wide (Fig. 2A).

Plesiotype male, creek about 7 miles east of Eureka, Glenn Highway, Alaska, 30 June 1968, S. G. Jewett, Jr. Taken with 18 additional males and 3 females. Plesiotype deposited in the collection of the California Academy of Sciences.

Two additional female specimens were taken at a creek at Richardson, Alaska Highway, 2 July 1968, Goeden and Jewett.

#### ZAPADA HAYSI (Ricker)

Creek about 7 miles east of Eureka, Glenn Highway, 30 June 1968, female, S. G. Jewett, Jr.

*ISOGENUS COLUBRINUS* Hagen

Tanana River at bridge north of Delta Junction, Alaska Highway, 1 July 1968, 4 males, 3 females, S. G. Jewett, Jr.

*PARAPERLA FRONTALIS* (Banks)

Moose Creek, 8 miles east of Palmer, Glenn Highway, 29 June 1968, female, S. G. Jewett, Jr.

*UTAPERLA SOPLADURA* Ricker

Chatanika River, Steese Highway, 4 July 1968, male, 8 females, S. G. Jewett, Jr.; same except 6 July 1968, male, female, S. G. Jewett, Jr.

*ALLOPERLA SERRATA* Needham and Claassen

One Mile Creek, Paxson, Richardson Highway, 1 July 1968, male, female, Goeden and Jewett.

*ALLOPERLA SEVERA* (Hagen)

Chatanika River, Steese Highway, 4 July 1968, male, Goeden and Jewett; tributary of Chatanika River, Steese Highway, 4 July 1968, male, female, Goeden and Jewett; same except 6 July 1968, male, Goeden and Jewett; Mendeltna Creek, Glenn Highway, 30 June 1968, 36 males, 46 females, Goeden and Jewett.

*CHLOROPERLA OVIBOVIS* Ricker

Moose Creek, Glennallen, Glenn Highway, 30 June 1968, 7 males, 9 females, Goeden and Jewett.

This record extends the known range of this species westward from the Back River drainage in McKenzie, Canada, where the types were collected.

*SUWALLIA PALLIDULA* (Banks)

Moose Creek, Glennallen, Glenn Highway, 30 June 1968, 2 males, female, Goeden and Jewett; Chatanika River, Steese Highway, 4 July 1968, 10 females, Goeden and Jewett.

*SWELTSIA FRATERNA* (Frison)

Creek 5 miles south of Paxson, Richardson Highway, 1 July 1968, 3 females, K. Goeden.

*TRIZNAKA SIGNATA* (Banks)

Mendeltna Creek, Glenn Highway, 30 June 1968, 12 males, 12 females, Goeden and Jewett; Tanana River bridge north of Delta Junction, Alaska Highway, 1 July 1968, male, S. G. Jewett, Jr.